

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250625080GZU-005

ISSUE DATE

26 August 2025

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250625080GZU-005

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. MDPD74127XX

Remark: "XX" represents the color of the appearance.

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

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<u>TEST:</u>	Electrical and Photometric as required to the IES LM-79 test standard.
<u>AUTHORIZATION:</u>	The testing performed was authorized by signed quote number: QGZ250611134.
<u>STANDARDS USED:</u>	The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:
IES LM-79-24	Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI C78.377-2017 (R2022)	Specifications of the Chromaticity of Solid State Lighting Products
<u>DESCRIPTION OF SAMPLE:</u>	The client submitted one sample of model MDPD74127XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250625080-007.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	Shao Guan Weng Yuan Pearly Gates Furniture Manufacturing Co., Ltd. GuanYing Industrial Park, GuanDu Economic Development Experimental Zone, Weng Yuan County, Guang Dong Province, PRC. 512625.
<u>DATES OF TESTS:</u>	06 August 2025
<u>ISSUED BY:</u>	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
<u>TEST LOCATION:</u>	Room101/301/401/102/202/302/402/502/602/702/802, No. 7-2, Caipin Road, Huangpu District, Guangzhou, Guangdong, China

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TEST REPORT

SUMMARY

Model Number:	MDPD74127XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For MDPD74127XX

Criteria	Result
Total Lumen Output	859.3 lm
Total Power	15.1 W
Luminaire Efficacy	57.1 lm/W
S/MH(C0/180)	0.29
S/MH(C90/270)	0.06
Correlated Color Temperature (CCT)	2751 K
Color Rendering Index (CRI)	91
R9	66
Chromaticity Coordinate (x)	0.4549
Chromaticity Coordinate (y)	0.4083
Chromaticity Coordinate (u')	0.2604
Chromaticity Coordinate (v')	0.5257

Remark:

N/A

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TEST REPORT

EQUIPMENT LIST

Equipment Used	Model Number	Control Number
Goniophotometer System	Go-R5000	SA063-16
KONICA MINOLTA - Illuminance meter	CX-2B_WL	SA063-16-01
Standard Lamp	D215S	SA063-16-06
Digital Power Meter	PLM3000	SA063-16-09
AC power source for Goniophotometer	PCR-1000WH	SA063-16-10
Temperature Meter	S500-TH	SA047-182

GENERAL REMARK

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When determining for test conclusion, measurement uncertainty of tests has been considered.

Throughout this report a ☐ comma ☒ point is used as the decimal separator.

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TEST REPORT

TEST METHOD

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IES LM-79

Light Distribution and Output Measurements

Light Distribution and total light output (luminous flux) were measured using a Go-R5000 Type-C Rotating Mirror Goniophotometer. Temperature 25°C and relative humidity of 60% was measured at a position in the testing laboratory.

The lamp rotates only around the fixed vertical axle in the prescribed burning position. The lamp and mirror permit the measurement of luminous intensity at the direction of any horizontal or vertical angle without tilting the lamp. The lamp was allowed to stabilize before measurements were made.

Chromaticity Measurements

Chromaticity was measured using a 2 meters integrating sphere spectral lamp measurement system, 4 π geometry, with an interior coating reflectance no less than 95 %. Temperature was measured at a position inside the sphere shielded from direct light. Relative humidity of 65% was measured at a position in the testing laboratory.

Spectral radiant flux measurements were made using spectroradiometer attached to the detector port of the integrating sphere. Each lamp was allowed to stabilise before measurements were made. The calibration of the integrating sphere spectroradiometer system is by the reference/standard lamps which are traceable to National Institute of Metrology P.R. CHINA. Lamp efficacy (lumens per watt) for each lamp model was then computed based on the luminous flux result. Electrical measurements including voltage, power and power factor were measured using YOKOGAWA - Digital Power Meter., model WT310E.

Correction factor (self-absorption) has been considered when doing measurement.

Standard lamp used for Goniophotometer method:

Model: D215S

Current: 4.809A DC

Standard lamp used for integrating sphere:

Model: D204

Current: 3.958A DC

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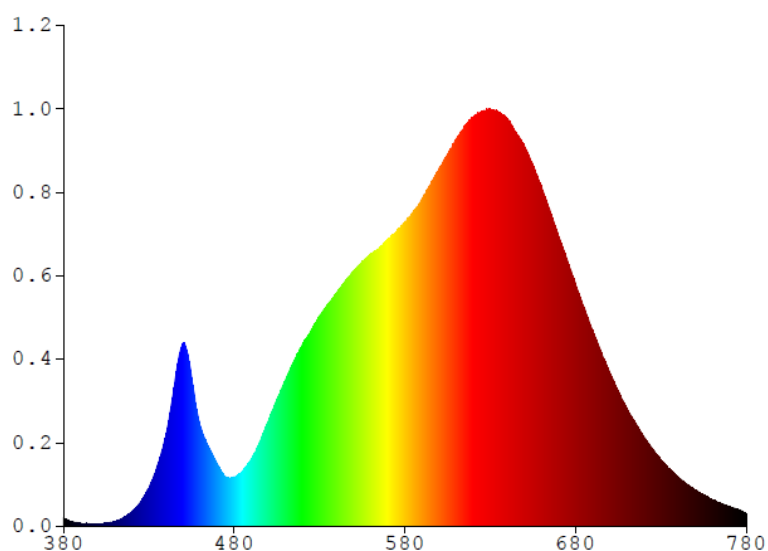
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For MDPD74127XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	1.6786	480	9.3841	580	58.7610	680	46.6650	780	2.3899
385	0.8991	485	10.6760	585	60.7170	685	42.1700		
390	0.5841	490	12.9120	590	63.1120	690	37.7560		
395	0.4601	495	16.3690	595	65.9520	695	33.7170		
400	0.4573	500	20.2410	600	68.9420	700	29.6460		
405	0.5925	505	24.4140	605	71.7140	705	26.0770		
410	0.9250	510	28.1260	610	74.6590	710	22.6890		
415	1.6691	515	31.8530	615	77.2360	715	19.9150		
420	2.7858	520	35.0850	620	78.9110	720	17.2560		
425	4.6148	525	37.7440	625	80.0640	725	14.9160		
430	7.3811	530	40.6220	630	80.5610	730	12.8510		
435	11.6010	535	42.8980	635	79.8160	735	11.0650		
440	17.5220	540	44.9970	640	78.6460	740	9.4905		
445	27.1340	545	47.2760	645	75.9180	745	8.1539		
450	35.3110	550	49.2140	650	73.4660	750	7.0095		
455	28.4990	555	51.1380	655	69.5610	755	6.0557		
460	19.3630	560	52.6070	660	65.5990	760	5.1713		
465	15.2400	565	53.6680	665	60.8540	765	4.4292		
470	11.9340	570	55.3130	670	55.9140	770	3.8014		
475	9.5251	575	56.8000	675	50.3930	775	3.2471		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74127XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

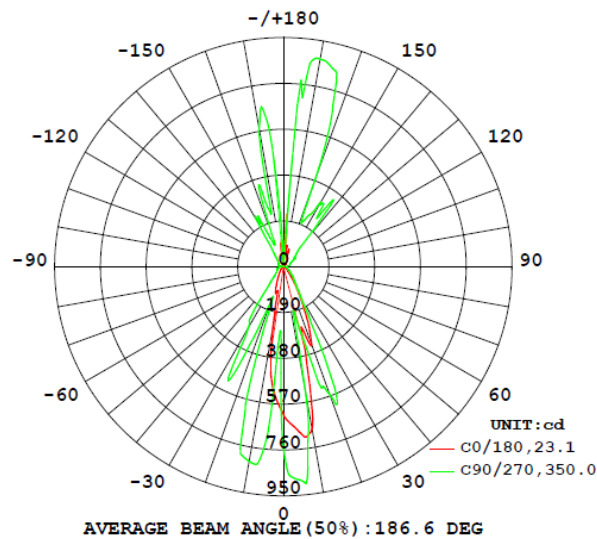
Photometric Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	R9	CIE 31'	CIE 31'	CIE 76'	CIE 76'
					Chromaticit	Chromaticit	Chromaticit	Chromaticit
					y	y	y	y
					Coordinate	Coordinate	Coordinate	Coordinate
					(x)	(y)	(u')	(v')
MDPD74127XX								
S2506250 80-007	base-up	2751	91	66	0.4549	0.4083	0.2604	0.5257

Photometric and Electrical Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous	Lumen Efficacy
						Flux (Lumens)	(Lumens Per Watt)
MDPD74127XX							
S2506250 80-007	base-up	120.0	126.7	15.1	0.990	859.3	57.1

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74127XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	611.7	660.3	685.1	605.5	753.0
5	679.6	854.2	866.2	878.6	890.2
10	683.7	842.9	804.4	692.3	541.9
15	336.3	530.4	331.7	183.1	290.9
20	341.4	446.9	260.0	525.0	559.2
25	226.8	177.7	238.8	525.6	366.5
30	132.2	112.3	129.6	258.1	152.0
35	76.1	78.8	73.3	128.6	93.8
40	46.0	56.0	49.0	77.7	69.2
45	29.3	35.1	38.4	61.6	54.3
50	19.8	26.3	24.0	46.2	39.8
55	14.3	19.4	16.6	30.2	30.6
60	10.9	15.4	12.6	21.3	24.8
65	8.5	13.0	10.6	15.7	19.4
70	6.8	11.4	9.1	12.3	15.5
75	5.3	9.0	7.5	9.9	13.0
80	3.9	6.2	5.6	6.8	6.9
85	2.6	3.4	3.3	3.5	3.2
90	2.2	2.2	2.4	2.6	3.3
95	2.2	3.0	3.3	4.2	9.9
100	2.8	4.6	5.4	7.5	17.7
105	3.7	8.8	8.6	11.5	25.2
110	4.7	12.3	11.3	14.8	30.3
115	5.9	15.4	15.0	18.6	32.9
120	7.2	20.2	22.2	25.0	37.2
125	8.4	28.6	29.3	31.2	54.4
130	10.2	43.1	28.2	38.0	58.4
135	12.6	71.8	41.7	53.4	76.0
140	15.7	113.7	74.5	167.7	159.8
145	22.9	178.2	95.8	220.9	254.5
150	34.1	274.5	92.6	250.1	309.2
155	41.9	401.0	155.5	142.4	221.7
160	45.5	237.7	406.5	315.2	386.6
165	47.5	254.1	735.4	783.9	839.6
170	89.7	391.2	833.9	849.9	874.5
175	159.6	231.4	220.2	790.4	668.0
180	0.0	0.0	0.0	0.0	0.0

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74127XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
MDPD74127XX		
0-30	320.7	37.3
0-40	399.5	46.5
0-60	459.4	53.5
0-90	490.1	57.0
60-90	30.7	3.5
0-180	859.3	100.0

Beam Angle

Total Beam Angle(°)

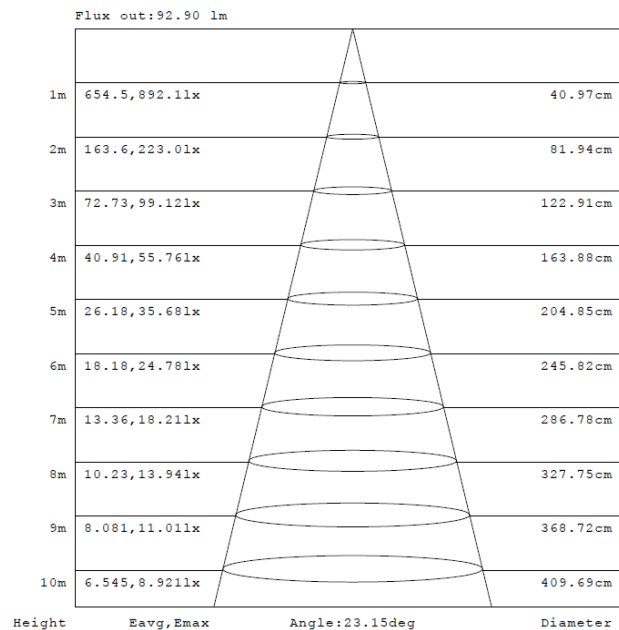
186.6

Illumination Plots

Model No.: MDPD74127XX

Mount Height: 2.5 m

Illuminance - Cone of Light



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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TEST REPORT

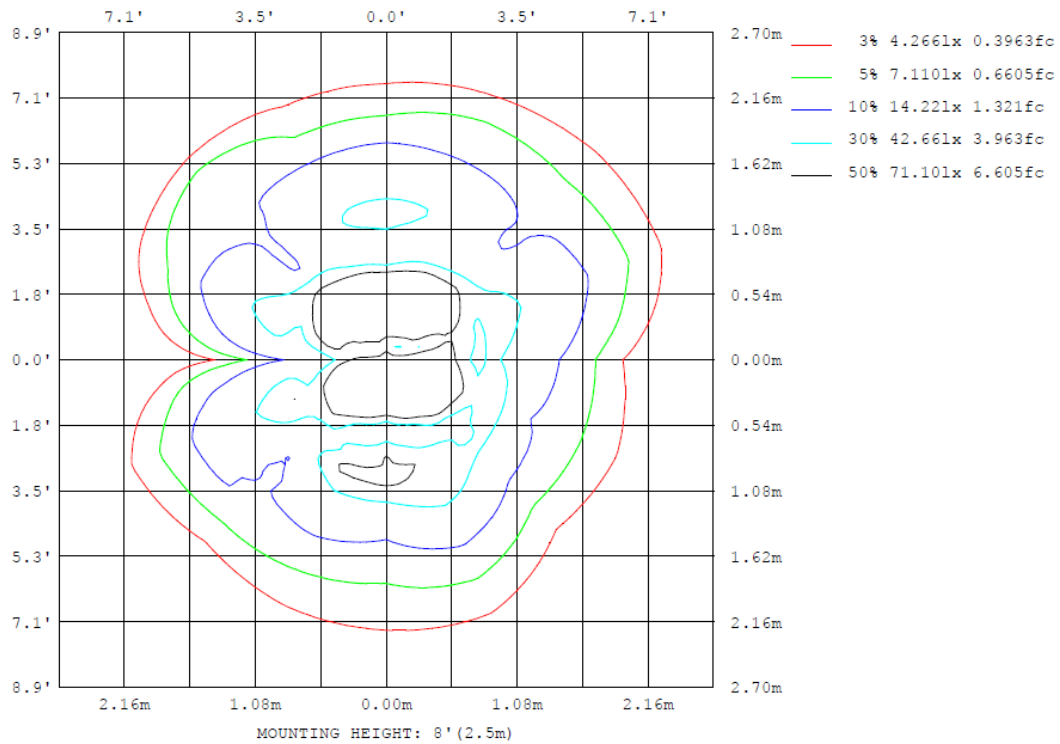
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74127XX

Model No.: MDPD74127XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74127XX

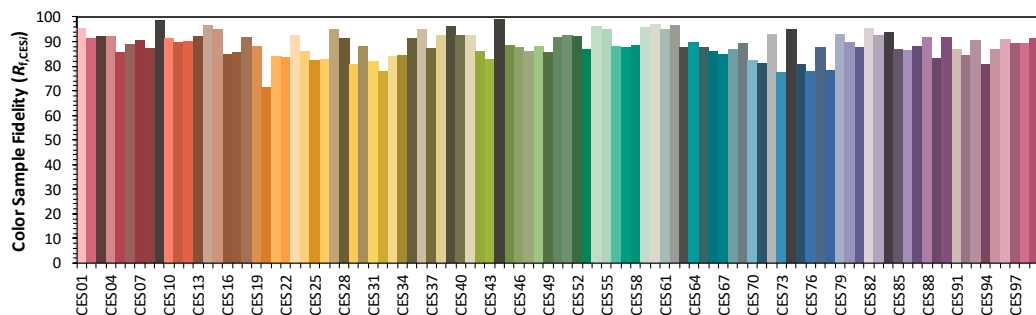
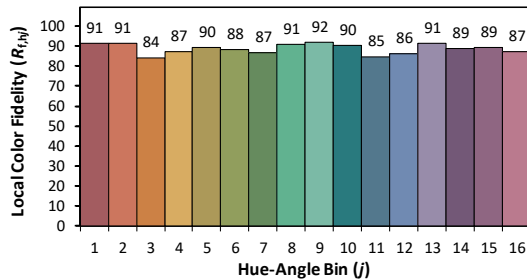
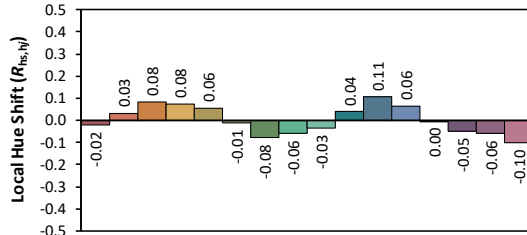
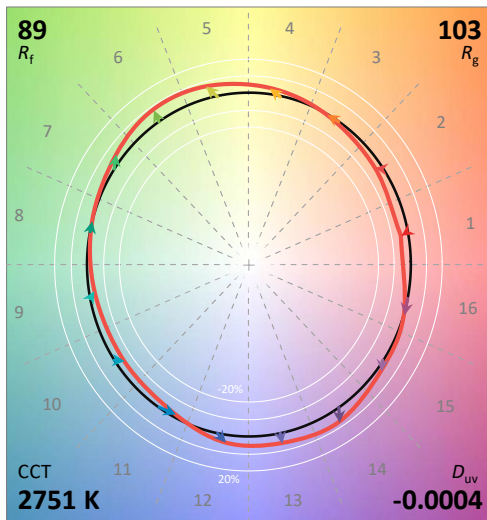
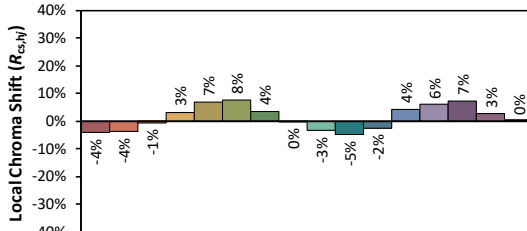
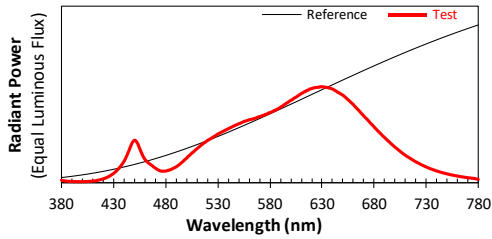
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/8/6

Model: MDPD74127XX



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4549
 y 0.4083
 u' 0.2604
 v' 0.5257

CIE 13.3-1995
(CRI)
 R_a 91
 R_g 66

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of MDPD74127XX



External view of MDPD74127XX

***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver PTB20W-0400-38-VCC1 (AB0258)



View of LED

In Charge Of Tests:

Done Ye

Done Ye
Engineer

Report Reviewed By

Shelley Ying

Shelley Ying
Reviewer

Attachment: None

***** End of Report *****